INTEGRATED GLOBAL CORAL REEF MAPPING USING SATELLITE IMAGERY*

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ABSTRACT

While concern is growing about the state of the earth's shallow water (<30 meters) coral reefs, projects to quantify the extent or condition of these ecosystems at a global or regional scale are limited. Current estimates of the extent of shallow reefs are based on professional judgment and knowledge of an area. However, a global coral map, derived from satellite imagery is now feasible using Landsat and, where available, high-resolution instruments. The final product of this mapping effort will depict 3-5 categories of seabed habitat and will be over 10 times more spatially resolved than the best currently available maps. While challenges remain, such as obtaining imagery with minimum cloud cover and maximum water clarity, these map products will be valuable to scientists, managers and decision makers. Moreover, the production of these maps will include other products such as estimated shallow water bathymetry, and the opportunity to assess coral reef change over time. The production of these maps is a collaboration of federal agencies, military agencies, and the private sector.

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